

Date: Monday, 4/23/2007 1:48:19 PM  
User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: STEP EXTRUSION
Job Number	: 31984		
Estimate Number	: 10058		
P.O. Number	: <i>N/A</i>	Part Number	: D2622120C
This Issue	: 4/23/2007 S.O. No. : <i>N/A</i>	Drawing Number	: D2622 REV C1
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: <i>N/A</i> Type : PURCHASED PARTS	Drawing Revision	: C1
Previous Run	: 30199	Material	: <i>N/A</i>
Written By	:	Due Date	: 5/10/2007
Checked & Approved By	: <i>[Signature]</i>	Qty:	<i>210</i> Um: Each
Comment	: Est. A: 02.11.12 New Issue KJ/RF		

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1 0 PG PURCHASING



Comment: PURCHASING

Issue P/O: *3610*

*0207104/24*

- a) Extrude as per Dwg D2622 Rev. C
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 38 ksi
- e) Minimum elongation = 8%
- f) Order at 120" longg) Bon L Canada Inc. tool # 897123 Rev. A
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

*(200)  
210*

2 0 D2622120CP Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 200.0000 Each(s)  
Extrusion

3 0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage  
Ensure material certification is attached

*[Signature]*  
*020515 (210)*

4 0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

Inspect dimension per Dwg D2622  
Check Pull test per Dwg D2622 for compliance page attached  
Check hardness with Webster tester

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/05/23

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP EXTRUSION

Job Number: 31984

Part Number: D2622120C

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

FF 07-05-22 70

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

107105/23

Job Completion



W 07-05-23

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

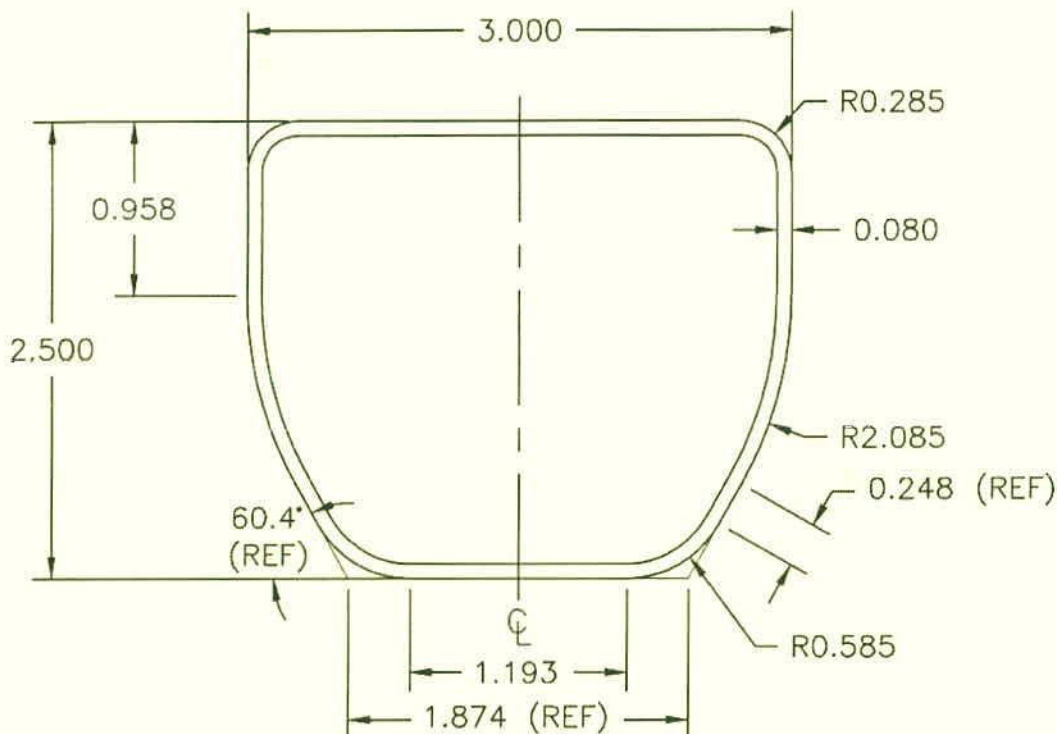
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries




DESIGN KE	DRAWN BY GP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2622	REV. C SHEET 1 OF 1
DATE 02.09.11		TITLE STEP EXTRUSION	SCALE 1:1
A	96.11.29	NEW ISSUE	
B	97.12.12	CHANGE MATERIAL, ADD TOL. QSI	
C	02.09.11	0.080 WAS 0.085; ADD PART & DIE No.	
CI	GP 02.10.04	ADD 'REV. A' TO DIE NUMBER	

RELEASED  
02.09.11 #



#### D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES (EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 Rev. A 
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi  
MINIMUM ELONGATION = 8%

- 5) PART IS SYMMETRIC ABOUT CENTERLINE
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

SHOP COPY  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 31984

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500 EDWARD AVENUE  
RICHMOND HILL, ON L4C 4Y9

05/07/07

159080

67821

1

Cust PO

B/I No

Lot

Date

3610

00343023

67821010

5/07/07

Sold To

46024

Ship To

46024

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7

Item No	Part No	Item Description	Cust Part
1.000	DAA-897123-1	120" Mill 6061 T6	D2622
Gross Weight	915 KGS		
Net Qty	888 KG	210 PC	640 M 3 PKG
Specification			Die Desc
AMS-QQ-A-200/8 & ASTM B221-00			

Mechanical Tests:

Test No.	Tensile MPA / KSI	Yield MPA / KSI	%Elongation	Conductivity	Bend/ Drift HREW
1	326.2 / 47.3	288.3 / 41.8	10.9	.0	93
2	318.7 / 46.2	282.1 / 40.9	10.5	.0	93

Chemical Analysis:

SI FE CU MN MG CR ZN TI

.67 .25 .24 .06 .90 .06 .06 .02

This will certify that the material described herein has been inspected and tested in accordance with Bon L Canada's standard sampling and testing procedures or in accordance with the requirements of any specifications forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

D. VanBakel, QA Manager Signed for Bon L Canada

